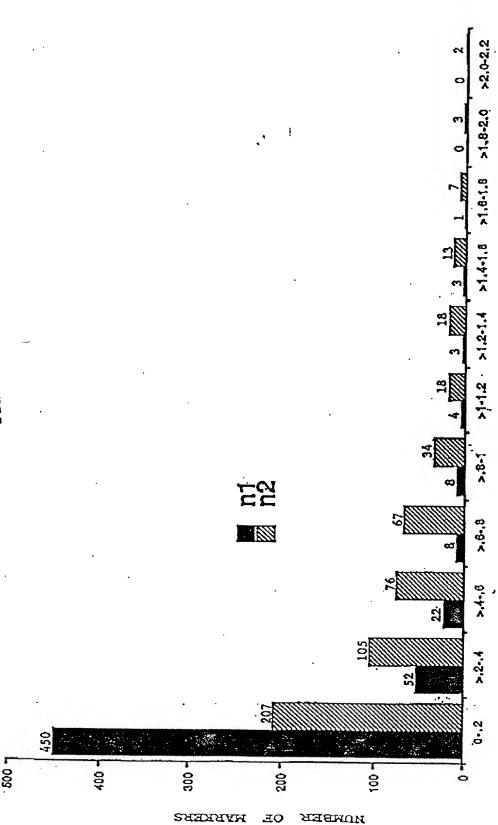
Ped. 310 ANCESTRAL TRACE FOR AMISH STUDY BIPOLAR PEDIGREES PED. 210 Richt Ext. 110 Progenitor CIRCA 1750 CORE PEDIGREE 110 LEFT EXT.

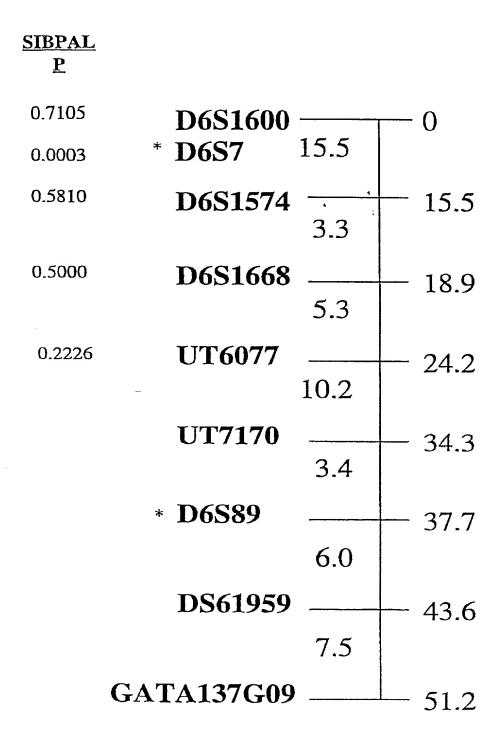
-3





CLASS BOUNDS

MAX LOD SCORES



* = NG morkers/values

Figure 3

SIBPAL P

	D13S56h1		0.0
	D13S56h2	0.0	0.0
0.0865	* D13S291	6.8	11.6
0.0171	D13S37 GATA125CO4 * D13S218	2.8	18.4
0.4336	D13S894 * D13S1m	6.1	21.2
0.0003	* D13S1t	0.0	27.3
0.4905	* D13S171	5.2	32.5
0.1593	D13S260	3.8	36.3
	D13S221	10.4	46.7
	D13S232	6.5	53.2

Figure 4

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SIBPAL P		1	0.0
	D15S114	11.1	
0.1449	299yf	5.8	11.1
0.0411	D15S131	7,8	16.8
0.2091	D15S153	7.6	24.6
0.0114	* D15S36	7.0	32.2
0.0003	* D15S45		
0,0433	D15S159	1.5	
0.0217	* D15S148		33.6
0.1020	135yc	1.4	35.0
	D15S1033		
	D15S150 D15S38	1.7	36.7
	* D15S117	5.6	
	GATA153F11	5.1	42.3
	D15S962		47.4
	D15S48ml	1.2	40.4
	189ус	2.4	48.6

Figure 5

SIBPAL P Value		
D4S412		0.0
O.5241	13.6	
D4S431 ——	1.2	13.6
D4S431a ——	0.9	15.7
0.D∞2→D4S2366—	1.0	16.7
D4S394a ——	3.2	
\bigcirc .0015 \rightarrow D4S3007	2.1	19.8
0.0035 TD4S394		21.9
O, $OOOO - D4S2949$	9.4	
O.0626 →D4S1605	2.5	31.3
$0.0005 \rightarrow D4S1582 - D4S107m$	0.5	33.8
VD4S403 ——		34.3
O.0002-D4S419	7.6	41.0
	6.2	41.9
0,0004 — D4S404 ——	6.6	48.1
D4S391 ———	12.1	54.7
D4S405 -	14.1	66.8

Figure 6

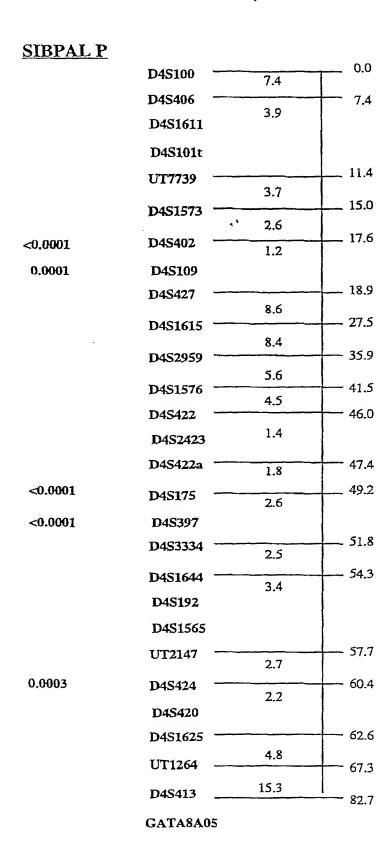
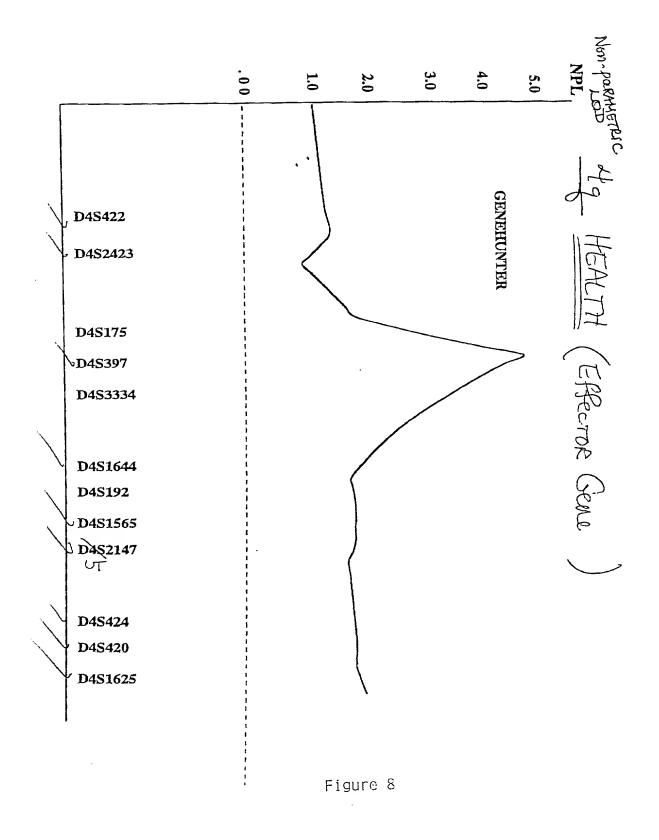


Figure 7



Finure 1. Genetic, Physical, and Transcription Unit Mapping of the Clock Locus

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Application No.: 09/881,012– June 13, 2001
Attorney Docket No.: 015280-248120 -- sheet 10 of 13

AMISH STUDY BIPOLAR PEDIGREE EXTENSIONS PROGENITOR 1700-1750

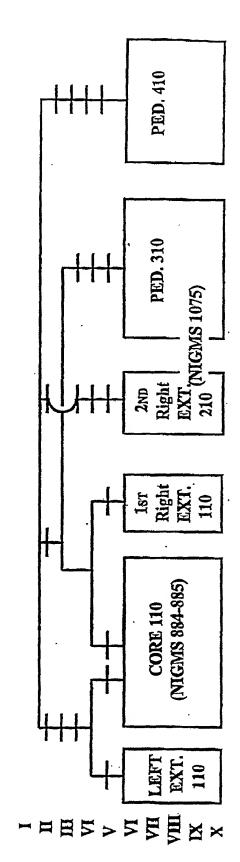


Figure 10

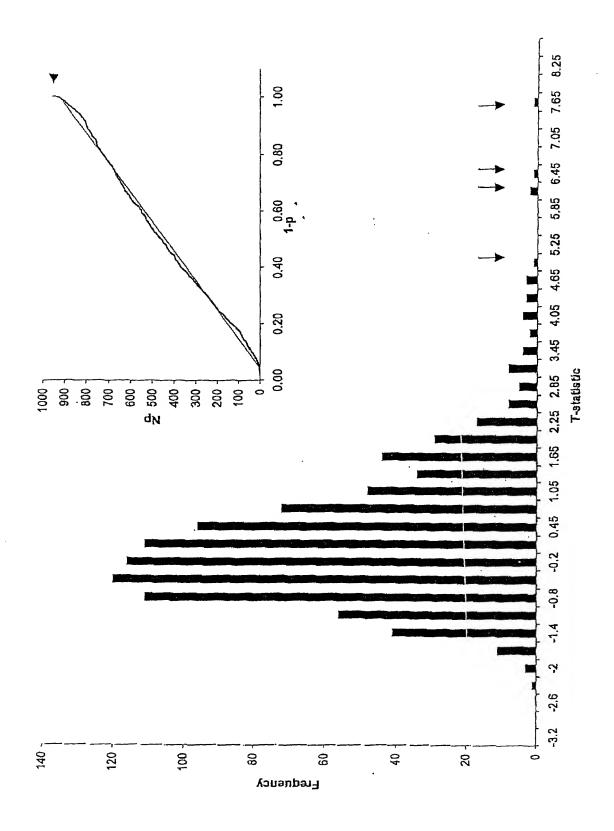


Figure 11

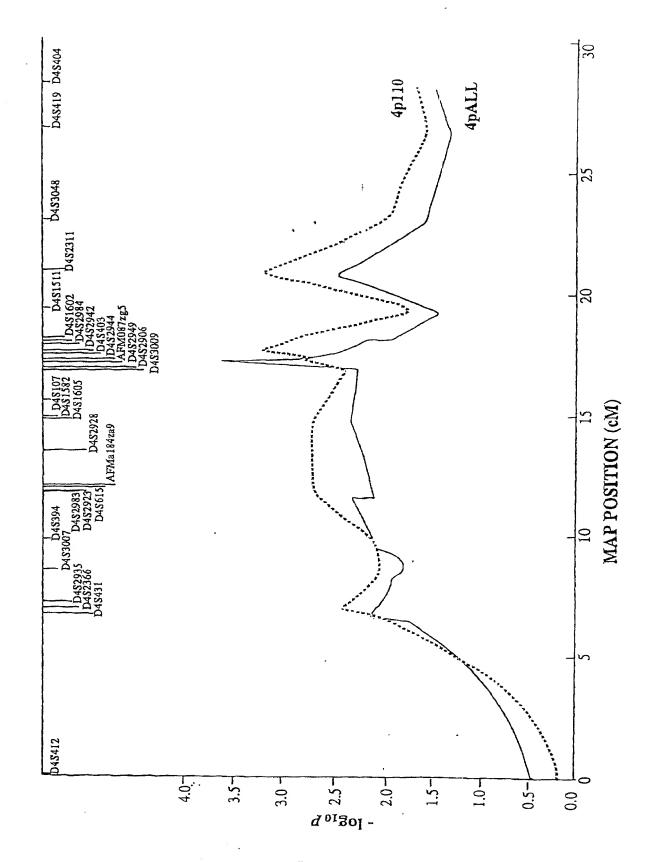


Figure 12A

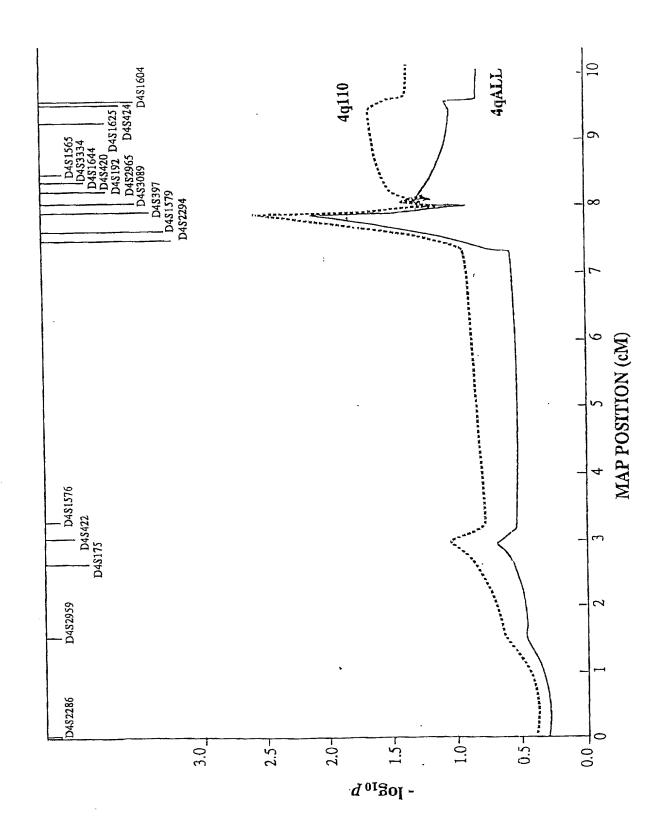


Figure 12B